

### What is raw milk?

Raw milk is milk from cows, goats, or sheep that has not been pasteurized.

### What is pasteurization?

- Pasteurization is a process of heating food to a specific temperature for a certain amount of time. This process kills bacteria and slows spoilage.

### Is there any evidence that shows raw milk causes more illness than pasteurized milk?

- The Centers for Disease Control and Prevention (CDC) conducted a study from 1993 to 2006 that examined outbreaks caused by raw milk products vs. pasteurized milk products.
- The study showed that while only about 1% of people in the U.S. consumed raw milk, the number of outbreaks associated with raw milk products was greater than the number associated with pasteurized milk products. In fact, the study showed that an enteric disease outbreak was 150 times more likely to occur in people who drink raw milk as compared to people who drink pasteurized milk.

### How common are raw milk outbreaks?

- According to the CDC, from 1998-2009 there were 93 raw milk-related outbreaks nationally. As a result, there were 1,837 illnesses, 195 hospitalizations and two deaths.
- In Utah, from 2009-2013, there were 241 reported cases of raw milk-related illnesses.

- Many cases are never reported, so the total number of raw milk-related illnesses is unknown, both nationally and in Utah.

### How is milk contaminated with bacteria?

- Milk may be contaminated with bacteria during the milk collection process and through a number of ways. Small numbers of bacteria might multiply and grow in the milk before someone drinks it if it is raw.
  - Cow feces coming into direct contact with the milk
  - Infection of the cow's udder (mastitis)
  - Cow diseases (e.g., bovine tuberculosis)
  - Bacteria that live on the skin of cows
  - Environment (e.g., dirt, processing equipment)
  - Insects, rodents, and other animal vectors
  - Humans, for examples, by cross-contamination from soiled clothing and boots.

### What are the health effects of drinking raw milk or other unpasteurized dairy products?

- Consuming raw milk products can cause a variety of harmful illnesses, including *Salmonella*, *E. coli*, *Listeria*, and *Campylobacter*, among others.
- Children, the elderly, pregnant women, and people with weakened immune systems are especially at risk for contracting serious illness from consuming raw milk products.

## What are symptoms of illnesses associated with raw milk exposure?

- Vomiting
- Diarrhea
- Abdominal pain
- Flu-like symptoms such as fever, headache, and body ache
- Less commonly, it can cause kidney failure, paralysis, long-lasting disorders, and even death.

Most healthy people will recover from illnesses that may be caused by raw milk products, but in rare cases, some can develop symptoms that are chronic, severe, or even life-threatening.

If you become ill after consuming raw milk products, see a doctor immediately, especially if you are pregnant. Pregnant women are at greater risk of contracting Listeria if raw milk products are consumed.

Listeria can cause miscarriage, stillbirth, premature delivery, or life-threatening infection of the newborn. The mother may not experience any symptoms, but the baby may be very sick due to the mother's exposure to Listeria through raw milk.

## How can I avoid exposure to raw milk?

Avoid drinking raw milk or consuming any products containing raw milk such as:

- Soft cheeses like brie, camembert, queso fresco, panela, asadero, and queso blanco made with unpasteurized milk.
- Yogurt made from unpasteurized milk
- Pudding made from unpasteurized milk

- Ice cream or frozen yogurt made from unpasteurized milk
- Unpasteurized cream.

## If you decide to consume raw milk, protect yourself and your family by following these tips:

- Purchase raw milk only from stores and dairies permitted to sell it.
- Dairies and stores that are licensed to sell raw milk must follow strict standards that limit disease-causing bacteria. Although these dairies and stores are regulated by the Department of Agriculture and Food, there is still no guarantee that raw milk will be free of disease-causing bacteria.
- Keep raw milk products refrigerated at or below 40°F. Do not let raw milk sit out at room temperature.
- Infants, young children, the elderly, pregnant women, and those with weak immune systems should avoid consuming any raw milk or raw milk products.
- See your doctor if you experience fever, diarrhea (especially if bloody), cramps, nausea, vomiting, or headache after consuming raw milk or raw milk products.

## Where can I get more information?

- Utah Department of Health, Bureau of Epidemiology, 801-538-6191
- [Centers for Disease Control and Prevention](https://www.cdc.gov/disease/index.html)

